

## UNITED STATES OF AMERICA

### DRAFT PRELIMINARY VIEWS ON WRC-11

**AGENDA ITEM 1.10:** to examine the frequency allocation requirements with regard to operation of safety systems for ships and ports and the related regulatory provisions, in accordance with Resolution **357 (WRC-07)**

**ISSUES:** Resolution **357 (WRC-07)** was adopted at WRC-07 for the consideration of additional regulatory provisions and spectrum allocations for use by enhanced maritime safety systems for ships and ports. The ITU-R is studying satellite detection of Automatic Identification System (AIS) and communications to support the identification and security of cargo containers entering and leaving international ports and ships (noting WRC-11 AI 1.22). ITU-R studies also include provisions for security communications in Article 33, and safety and security communications, including e-navigation. The ITU-R will conduct studies, as a matter of urgency, to determine the spectrum requirements and potential frequency bands suitable for these systems. These studies should include the applicability of spectrum efficient technologies, as well as sharing and compatibility studies with services already having allocations in potential spectrum for ship safety and port security systems.

#### **BACKGROUND:**

##### **Satellite Detection of AIS**

International Maritime Organization (IMO) Resolution MSC 74(69) required that AIS “improve the safety of navigation by assisting in the efficient navigation of ships, protection of the environment, and operation of Vessel Traffic Services (VTS), by satisfying the following functional requirements: 1) in a ship-to-ship mode for collision avoidance; 2) as a means for littoral States to obtain information about a ship and its cargo; and 3) as a VTS tool, i.e. ship-to-shore (traffic management).” Although these IMO functional requirements clearly specify safety and surveillance functions, the ITU-R Radio Regulations only recognize the AIS-SART operation as having a safety function on the two AIS frequencies. Topics that may be appropriate for study include:

- a) the need for exclusive maritime mobile-satellite service allocations to support additional channels for satellite detection of AIS and the impact of these potential new allocations to existing systems and services; and
- b) the appropriate RR designation of the AIS channels, taking into account the AIS ship-to-ship collision avoidance function, AIS use in Vessel Traffic Services (VTS), and AIS general use for navigational safety.

## **Communications for Ship and Cargo Identification**

The global maritime community has agreed on special measures to enhance ship and cargo identification and tracking, as well as ship and port security and safety. Some administrations, as well as the International Standards Organization (ISO), are studying the spectrum and standardization requirements for electronic seals and automatic identification tags used on freight containers and supply chain tags located on the freight container contents. These tags will provide a more secure international transportation system. Administrations with economic dependency upon a maritime environment expect to recognize a benefit from an international conformity on cargo standards.

## **Provisions for Security Communications in Article 33**

Article 33 of the Radio Regulations describes the operational procedures for maritime urgency and safety communications, including the transmission of maritime safety information. The ITU-R is studying the need to modify Article 33 to include security communications and the transmissions of maritime security information.

## **Safety and Security Communications, including E-navigation**

Modernization of shipboard and port safety and security communication systems, including e-navigation, is another important issue to the global maritime community. The IMO COMSAR and NAV subcommittees are reviewing technologies that may require amendments to the Radio Regulations and possibly new spectrum allocations. The ITU-R is studying the development of VHF radio systems and technologies, the need to retain FM voice communications, and the use of 12.5 kHz channel spacing. Other studies include narrow band digital voice and data communication using 6.25 kHz channel spacing, and broadband data communications using two or more 25 kHz adjacent channels.

There is a need to study the data requirements of the 518 kHz NAVTEX and the Inmarsat C SafetyNET to support the need for graphical navigation and meteorological, search and rescue, and security information. There is also a need to study integrated shipboard navigational display systems to support e-navigation.

**U.S. VIEW:** If studies identified in Resolution 357 (WRC-07) determine the need for additional allocations to the maritime service and existing services can be protected, the United States supports the allocation of spectrum required to support ship and port safety and enhanced maritime safety systems to the maritime mobile service.